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TITLE: HIGHLY BENDABLE FLAT CABLE
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INVENTOR- INFORMATION:

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ABSTRACT:

PROBLEM TO BE SOLVED: To provide a highly bendable characteristic by constituting it by sandwiching a rectangular conductor of material having specific elongation and tensile strength between tape insulators.

SOLUTION: A rectangular conductor is composed of material having elongation not less than 7% and tensile strength not less than 35 kgf/mm², and an SNCA copper alloy containing Ni by 0.4 to 4% and Si by 0.1 to 1.0% is desirably used, and the other metal such as Zn and Mn may be contained by a trace

quantity. Therefore, a thickness of the rectangular conductor can be thinned to about 0.015 mm, and it is not disconnected by sliding motion not less than 3 million times in a sliding radius of 2.5 mm. It is better to preadjust this copper alloy to draft such as elongation becomes 7% or more and tensile strength becomes 35 kgf/mm² or more by an annealing process, etc. It is desirable to previously plate this copper alloy with silver, and draft of a conductor by heat treatment is easily adjusted, and corrosion resistance and connector fitting performance are improved. A prescribed thickness film composed of a double structure such as polyimide/polyurethane is normally used as an insulator.

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